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	Construction POLICIES AND PRACTICES	
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DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF ENGINEERS
WASHINGTON, D.C. 20314

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Regulation
No. 415-2-1

3 April 1978

Construction
POLICIES AND PRACTICES - CLEARING

1. Purpose. This regulation prescribes general policies for clearing Civil Works reservoir areas by Divisions and Districts.

2. Applicability. This regulation applies to all Divisions and Districts engaged in Civil Works activities.

3. General Objective. In planning the clearing of reservoir areas, the general objectives will be: to clear only to the extent required in order to effect an overall reduction in construction costs, to clear areas that would otherwise create hazards to the primary project purposes, but not to clear to an extent which will create a maintenance problem from regrowth. This planning will take cognizance of the fact that floatable debris from sources within the reservoir area does not normally constitute an appreciably greater problem than exists from debris originating outside the reservoir area. Planning will also take into account the following:

- a. Minimum public health hazards.
- b. Eliminating operational hazards.
- c. Minimum interference with navigation.
- d. Maximum practicable benefits to fish and wildlife within scope of authorization.
- e. Effecting maximum possible salvage of timber and other usable wood.
- f. Achieving a good general appearance particularly in those areas most used by the public.
- g. Eliminating pollution.
- h. The environment and aesthetics of the area.

4. Clearing Limits. These are divided into two general classifications: vertical and horizontal. The vertical limits are further divided into upper and lower limits. The vertical limits are the controlling limits.

This regulation supersedes ER 415-2-1, 3 June 1969

Horizontal limits, when applied, are normally within the vertical limits. Guidelines for applying vertical and horizontal limits are as follows:

a. Vertical Limits.

(1) The upper limit of clearing will generally be 0' to 3' above the appropriate pool or sufficient horizontal distance, whichever is less, to insure that all possible timber subject to "tree kill" will be removed. These will generally be as follows:

(a) Flood Control Reservoirs - 0' to 3' above the maximum conservation, winter or permanent pool.

(b) Multiple Purpose Reservoirs - 0' to 3' above the maximum power pool. Any project having a "project purpose" (i.e., downstream power, water supply, etc.) which requires a drawdown of the pool will be treated as a multiple purpose reservoir.

(c) Navigation Reservoirs - 0' to 3' above the normal operating pool.

(2) The lower limit of clearing will generally be as follows:

(a) Flood Control Reservoirs - 5' below the minimum conservation, winter or permanent pool.

(b) Multiple Purpose Reservoirs - 5' below the 10-year frequency drawdown.

(c) Navigation Reservoirs - Complete clearing within the navigation channel. Such clearing as necessary of vegetation not adaptable to flooding from the navigation pool within the normal operating pool to prevent snags and floating debris which will create hazards to navigation. All other clearing will be accomplished 5' below the normal operating pool.

(d) In those cases where water supply will be an authorized project purpose, the lower limit of clearing will be the bottom of the reservoir if this procedure is cheaper than effecting the counteracting water treatment required. The costs of the additional clearing required constitutes a specific cost for water supply. Note that the primary objection of nonclearing with respect to water supply is dissipated over a period generally of less than 10 years. Special consideration should also be given to removing all possible sources of pollution.

(3) No clearing in reservoirs where winter or other pools are not authorized.

(4) In isolated areas and tributaries where hazards to public health, appearance and recreational use are not evident no clearing will be accomplished.

b. Horizontal Limits. The horizontal limits given below with regard to main dams, public use areas, highway crossings and existing or proposed major populated areas are generally considered to be the minimum. The horizontal limits are generally as follows:

(1) The horizontal extent of clearing will be the total of areas for which clearing is required for specific purposes only, to include mosquito control, appearance factors, debris problems, operational standards, and other items referred to in the preceding paragraph. Some of these items are discussed in the following subparagraphs.

(2) Generally, complete clearing within the pool will be done within one mile of any part of the main dam structure. However, in the nonpool portions of the damsite area, clearing limits will be established very carefully to avoid despoiling what may be one of the most important natural resource areas of the project.

(3) Clearing within the pool will be done within one mile of each primary public use area. This limit may be expanded if necessary to permit access from public use areas to major reservoir pool areas.

(4) Clearing will be done within one-half mile of each highway crossing of the reservoir.

(5) Clearing will be done within one mile of each existing or proposed major populated area. An existing major populated area is defined as any area of 100 acres or more having a population density in excess of one-half person per acre. A proposed major populated area is one in which it is anticipated that the population will equal or exceed the limits of an existing major populated area within three years after the reservoir is placed in operation.

(6) Any areas in which the cost of clearing performed for mosquito control alone is less than the additional cost of required mosquito control measures if clearing is not done.

(7) Precautions will be taken to protect the area adjacent to the upper limit of clearing, especially along those sections of shoreline adjacent to the damsite, recreational use areas, highway crossings, near

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populated areas, and any significantly important resource, natural or manmade, such as a historical site or outstanding geological formation. These precautions will include protection of shrub species within 1 to 3 feet horizontally of the clearing line, suitable survey methods for defining or marking the upper limits of clearing with least amount of damage to vegetation, control of felling of large trees onto trees and tree areas outside of the clearing line, and maneuvering of equipment by the contractor on nonroad areas outside of the clearing line.

5. Timber and Surplus Wood Salvage. Every effort will be made to coordinate clearing operations to the extent that maximum benefit will be derived from the disposal of usable timber and other usable wood. "Public projects" for the disposal of surplus wood should be instituted at the discretion of the Division and District Engineers where wood is utilized domestically as a supplemental energy source and thus can provide such a benefit. The salvage of marketable timber may require additional time which must be allowed for in project planning. The salvaged of other wood should be accomplished without undue delay to construction progress and with suitable attention to public safety as well as safeguards against Government liability for injury.

6. Clean up. The extent of clearing and clean up generally to be followed all reservoir areas is contained in the Guide Specifications, Civil Works Construction, CE 1301, on Clearing.

FOR THE CHIEF OF ENGINEERS:



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